

# PATENT ABSTRACTS OF JAPAN

(11) Publication number : 09-072993

(43) Date of publication of application : 18.03.1997

(51) Int.Cl.

G21F 9/06

B01D 65/02

(21) Application number : 07-255637

(71) Applicant : JAPAN ORGANO CO LTD

(22) Date of filing : 07.09.1995

(72) Inventor : TSUDA SATORU

OHASHI SHINICHI

SUNAOKA YOSHIO

MORITA TOSHIO

## (54) SCRUBBING METHOD FOR FILTER TOWER USING HOLLOW FIBER MEMBRANE

### (57) Abstract:

**PROBLEM TO BE SOLVED:** To eliminate the surface roughness of membrane to the utmost extent and effectively peel off and remove trapped fine particles by setting an optical flow rate of cleaning air and cleaning time.

**SOLUTION:** Hollow fiber membranes 2A and 2B of 100 to 50000 pieces are housed in a protective cylinder 3A. Raw water including fine particles mainly comprised of iron oxide as impurities is allowed to pass through a filter tower provided with a hollow fiber membrane module 1 from the outside to inside of the fiber membranes 2A and 2B for filtration. Then, after forming a gas-liquid mixing state in the cylinder 3A, the membranes 2A and 2B are vibrated so as to peel off the fine particles adhered to the outside thereof. At this time, the flow rate of a gas to be introduced into the cylinder 3A is set to 290 to 700m/h. Thus, a decrease in permeability due to roughed outer surface of the membranes 2A and 2B can be suppressed and the fine particles of iron oxide adhered to the surface thereof be also removed effectively by setting a scrubbing air flow rate or processing time.

